78-85 and 87-92 acceptable in describing with specificity that distinct claim of the subject matter which Applicant regards as his invention.

2) Applicant concedes that the term "said water-soluble acid" in claim 82 does not utilize the same term in the independent claims which relate to the term "aqueous soluble acid." In order to maintain consistency, the Examiner's suggestion is gratefully accepted in that claim 82 has been amended substituting the term "said water-soluble acid" to "said aqueous-soluble acid." It is, however, noteworthy to mention that the chemical literature and the dictionary definitions for the term "aqueous" is totally synonymous with the term "water" in that the unabridged dictionaries examined will cite the definition of "aqueous" as: of water; containing water; made with water.

3) The Examiner submits that claim 86 recites the limitation "said medicament" and that claim 86 is dependent upon claim 78 which uses the term "suitable medicinal agent." The Examiner's argument is well-taken and claim 86 has been accordingly amended.

4.

1) The Examiner submits that the instant application in claims 78-90 are rejected as being unpatentable over Cole *et al.* (US 5,089,606). With all due respect to the Examiner, merely citing that Cole *et al.* utilized some common chemicals that are common to the instant application of Scherr, fails to take into consideration certain inherent major differences between the methodology of Cole *et al.* and the instant application of Scherr.

Thus, Cole *et al.* utilized a double barrel syringe. Into each of the two barrels of the syringe are inserted two separate compounds, which then react when released through

a common exit applicator. Therefore this device is used directly *in situ* for the treatment of various pathological states.

Cole *et al.* describe their methodology with the utilization of a water-insoluble di-or trivalent metal salt. This water-insoluble di-or trivalent metal salt component is a major component in practically all of the claims of Cole *et al.* In our application we cannot possibly start with a water-insoluble di- or trivalent metal salt, since our purpose is to insolubilize the aqueous (water) soluble pectin. The use of di- or trivalent salts as practiced by Cole *et al.*, all of which are aqueous insoluble, is an attribute which would make totally unfeasible the final product in the instant application had we started with any one of those insoluble di-or trivalent metal salts. We therefore have to add a cation metal ion salt that would be capable of complexing with the aqueous soluble pectin to then form an aqueous-insoluble pectin hydrogel. These two methods are completely diverse in their chemical synthesis, their starting components, and in the methodology by which they can be used for treating a pathological state.

In the case of my pendent application we dry the composite mixture so prepared and place onto a cloth which will act as a suitable secondary dressing for the pectin product so prepared, whereas in the Cole *et al.* patent, the mixture so made in this double-barrel device has to be used 'as is' and then a secondary dressing has to be placed over it, to hold the suitable components in place.

The insoluble metal salts utilized by Cole *et al.* must be made soluble by reacting with water-soluble acids (See column 6, lines 29-35). Examples of suitable acids include alginic acid amongst others. Alginic acid is an aqueous-insoluble acid and could not possibly act as a water soluble acid neither in the patent of Cole *et al.* and certainly not in

our application, in order to convert the insoluble metal ion salts to soluble metal ion salts (emphasis added).

The Examiner admits that the reference of Cole *et al.* differs from the instant claims of Scherr in that Cole *et al.* does not disclose the preferred polysaccharide to be pectic acid; the addition of ammonium hydroxide, surfactants, plasticizers, and sodium tetraborate as well as the fact that the composition is poured onto a fibrous cloth. These differences cited by the Examiner between Cole *et al.* and the instant application of Scherr are patently significant in that Cole *et al.* by deleting them can in no way achieve the results of the dressing of Scherr and the composition by which it has been achieved.

With all due respect to the Examiner, searching the files of the U.S. Patent Office to find a series of patents where one may cite the utilization of a component or two utilized in the instant application of Scherr and another may utilize a different component used in the application of Scherr, etc. until all of the components used in the application of Scherr have been shown to be cited in a multiplicity of patents over an extended period of time, presents a distorted plethora of antecedents to the instant application which does not justify their citation as prior art, even in the hands of someone skilled in the art. Therefore, presumably anyone skilled in the art would have taken all of these individual components which exist in the composition cited by Scherr and put them all together by extracting one or two each from all of the patent applications cited in the response of the Examiner, but this has not occurred to date except in the instant application of Scherr.

The fact that the instant application of Scherr and the composition of Scherr would have been obvious to one skilled in the art begs the question in that we have not found anyone of the thousands of people who work in this area and are considered skilled

in the art to have compiled a composition as set forth in the composition of Scherr to utilize a novel bandage which when appropriately dried and placed into a sterile package provides a healthcare individual with an instant bandage to be applied to a wound or lesion as opposed to a patient making himself or herself available in an emergency room and having to wait while two separate compositions are synthesized by an appropriate chemist and they are placed in two barrels of a double barrel syringe and they are squirted onto an open wound and a gauze or other bandage put on top to hold them in place as is practiced by Cole *et al.* As a distinguished jurist once said:

> "Knowledge after the event is always easy, and problems once solved present no difficulties, - indeed, may be represented as never having had any...."

It is quite clear that a study of the research efforts of Thomas A. Edison in attempting to invent an incandescent bulb would have been obvious to anyone since it has been known for years prior to Edison that sending an electric current through a wire would cause the wire to glow. It also has been known for many, many years that burning requires oxygen, and therefore, it need not have taken over a thousand experiments for Edison with different filaments, and different chemicals, and different fibers for Edison to come to the conclusion that his fibers were burning up because he left air in his incandescent bulb and the fibers burned up the minute he let electric current through it. All he had to do was to remove the air causing a vacuum to be present after the bulb was sealed and the glowing filament would stay glowing for very, very long periods of time. Well, how then did Edison manage to get a patent on such an obvious factor if all other people would be cited against him who knew that burning requires oxygen and that sending along electric current through a wire would cause it to glow?

The fact that Cole *et al.* or any other prior inventor mentions the word "pectic acid" (Claim 2) in passing as a possible substitute for the principal product described in Cole *et al.*'s patent, without demonstrating that such an application would be feasible under the conditions set forth by Cole *et al.* doesn't in and of itself lend any more credence to the fact that Cole *et al.* mentions pectic acid and Scherr showed how pectin could be utilized and have certain unique chemical properties in order to prepare suitable medical dressings any more than Scherr should be prohibited from claiming that water is used in an application, because so many other patents happen to use water as a component in preparing unique compositions.

The mere mention in passing by Cole *et al.* and their claims 2, 10, and 14 that a polysaccharide consisting of "pectic acid" can be utilized in preparing the "water-insoluble polysaccharide hydrogel foam of claim 1" ... "wherein said salts are selected from the group consisting of calcium carbonate, calcium phosphate dibasic, barium carbonate and zinc carbonate," as is cited by Cole *et al.* in their claim 3.

The Applicant takes strong exception to the inference that the mere citation of "pectic acid" dignifies the patent of Cole *et al.* to be cited as prior art precluding the instant application of Scherr. To the contrary, it must be clearly understood that there are a plethora of pectins having varying physical and chemical properties failing which the referenced citations of Cole *et al.* would not act in the manner as claimed by Cole *et al.* Applicant respectfully cites the following volume

> *Hydrocolloid Applications - Gum technology in the food and other industries*
> by A. Nussinovitch
>
> Published by Blackie Academic & Professional (An Imprint of Chapman & Hall) in 1997

Chapter five from this volume is cited herein as Exhibit A in its entirety for the convenience of the Examiner. Note that on page 84 of said Exhibit appended hereto that the American Chemical Society has adopted specific nomenclature for different types of pectic substances as is illustrated for the definitions of pectic substances, protopectin, pectinic acids, pectin (or pectins) and pectic acid (See Exhibit A - page 85).

> "**Pectin** (or pectins) are those water-soluble pectinic acids of varying methyl ester content and degree of neutralization that are capable of forming gels with sugar and acid under suitable conditions.
>
> **Pectic acid** is a term applied to pectic substances composed mostly of colloidal polygalacturonic acids and essentially free of methyl ester groups."

Cole *et al.* (US 5,089,606) cites the use only peptic acid. All of the claims of the instant application of Scherr deal with pectin or pectins. The American Chemical Society has clearly differentiated the chemical structure as well as any combining attributes of these two chemicals in that they are uniquely different from each other. There is no more a relationship chemically, physically, and biologically between pectin and pectic acids as there would be alleged between H_2O (water) and H_2O_2 (hydrogen peroxide). In addition, the performance of pectins of the instant application is unique in their antimicrobial activity and their chemical activity as a result of the unique composition in which they constitute a component of the total matrix. Therefore, with all due respect to the Examiner, Cole *et al.* (US 5,089,606) in view of Nelson (US 4,065,614); Cole *et al.* (US 5,089,606) in view of Park *et al.* (US2001/0038831); Cole *et al.* in view of Pellico (US 4,291,025); and Cole *et al.* in view of Shah *et al.* (US 5,527,271) are not relevant as a presumption of prior art to the instant application.

These substances will vary greatly in being able to react with a di- or tri-valent

metal salt depending upon their structure and other conditions within the milieu in which they are treated. These factors are discussed in some detail in the volume entitled:

Chemistry and Function of Pectins, edited by Marshall L. Fishman and Joseph J. Jen - a part of the American Chemical Society's Symposium Series 310, wherein on page 3 (Exhibit B):

> "In all natural pectins, some of the carboxyl groups are in the methyl ester form. Depending on the isolation conditions, the remaining free carboxylic acid groups may be partly or fully neutralized, i.e., partly or fully present as sodium, potassium or D-galacturonic acid units to total D-galacturonic acid units is called the degree of esterification (DE and strongly influences the solubility, gel forming ability, conditions required for gelation, gelling temperature, and gel properties of the preparation."

The paragraph on page 7 of the volume edited by Fishman and Jen, is appended hereto as Exhibit C. The last paragraph on page 7 stipulates the important variables before one can influence the gelation of pectins, specifically with calcium and other ions.

Page 249 appended hereto as Exhibit D indicates the large number of variable pectins and the fruits, nuts, and vegetables from which they may be isolated. Page 5 of the volume edited by Fishman and Jen (Exhibit E) cites the variable physical properties of pectins which have to be observed prior to the ability of the pectins to react with di- or trivalent cation salts.

Page 9 of the volume edited by Fishman and Jen (Exhibit F) outlines the chemical properties of pectins that must be observed prior to their ability to react with di- or trivalent cation salts.

We therefore, can categorically submit that the mere mention of the term "pectic acid" by Cole *et al.* fails completely to indicate the chemical components of pectic acid

that will provide the water-soluble salts of pectic acid for the composition as set forth in the Cole *et al.* patent.

In referring to the Cole *et al.* patent, the Examiner claims that:

> "... The reference differs from the instant claims insofar as it does not disclose the preferred polysaccharide to be pectic acid; ...."

With all due respect to the Examiner, the instant application of the Applicant does not disclose the preferred polysaccharide to be pectic acid (whatever that connotation may mean). The Applicant has clearly shown the plethora of various derivatives of pectin that exist and has been specific in the instant application to indicate the specific derivatives of pectins that he has tested and feels can be utilized to be incorporated in a medical dressing of a composition as set forth in the instant application that would serve to be efficacious in treating the wound and to have certain beneficial antimicrobial and other physiological activities with a minimal of any cytotoxicity that would impair the use of the compositions of the instant application to be used in the treatment of wounds. The mere use of a term "pectic acid" discloses nothing more of a basic molecule which can exist in a considerable number of variations of chemical structure that would have varying physical and chemical properties of its own as well as varying properties when combined in the composition of the instant application.

Consequently, Cole *et al.* provides no precedent, neither when considered by itself, nor when considered in the light of Nelson (US 4,065,614), Park *et al.* (US 2001/0038831), Pellico (US 4,291,025) and Shah *et al.* (US 5,527,271) that would be sufficiently similar to the totality of the compositions set forth in the instant application of Applicant to act as a significant prior art reading on Scherr's application.

Further, to what degree those skilled in the art can roam abroad in the literature to find the specific kinds of pectic acid that could be utilized as is utilized by Scherr in the instant application can hardly be construed as prior art by Cole *et al.* even when considering the patents of Nelson (US 4,065,614), Park *et al.* (US 2001/0038831), Pellico (US 4,291,025 and Shah *et al.* (US 5,527,271) unless the specifics of the composition of Scherr resulting in gelation of the pectins used by Scherr are also utilized in the composition of Scherr for the purpose for which the instant application is designed, which is the treatment of wounds, lesions, and related pathological states.

It is particularly noteworthy that the citation of the patent of Cole *et al.* as the primary citation issued in 1992 which issue is more than 15 years later than the issued patent of Nelson and also a number of years later than the issued patent of Pellico. Therefore, if Cole *et al.* had required or had any interest in acquiring citations of prior art, for the unique composition of the instant application herein, at no time did he take advantage of the patents of Nelson or Pellico to provide the information of those chemical and physical properties of pectin which would make it possible to claim their reduction to insolubility with certain divalent or trivalent ions. It would appear that the Examiner is pleading the case of Cole *et al.* when Cole *et al.* themselves had no interest in achieving such specificity. In fact, out of the 38 examples, of compositions cited in the patent by Cole *et al.* there is not one that is concerned with those characteristics, chemical, and physical of pectin which would make feasible rendering pectin insoluble with di- and trivalent ions. We certainly know that Cole *et al.* must have been aware of the patent of Pellico since it was cited against him prior to the issue of U.S. patent number 5,089,606; and certainly as one skilled in the art as was Cole *et al.* there is an

enormous literature on the physical and chemical properties of pectins for Cole *et al.* to be cognizant of what was required to achieve insoluble pectins utilizing divalent or trivalent ions as is set forth in the patent of Cole *et al.*

The Examiner submits that Shah *et al.* disclose wound dressings comprising a hydrogel polymer impregnated into a substrate. The instant application of Scherr does not utilize wound dressings of a composition which composition are impregnated into a substrate. The composition of the instant application is layered onto a backing with no intent of impregnating the active wound dressing into the backing. The purpose of Scherr's composition is to provide a dressing which already has a backing as part of the active composition to be placed over the wound. This is particularly saving in costs and in work of having to provide a secondary backing contrary to the hydrogel polymer of Shah *et al.* where the active component is impregnated into a cloth which then requires an additional backing.

The Examiner submits that:

> "It would have been obvious to one of ordinary skill in the art to have used pectin in place of alginate motivated by the desire to use a compound with similar properties that could perform the same function as disclosed by the secondary reference."

The Examiner's characterization that pectins and alginates have "similar properties" that could perform "the same function as disclosed by the instant application" is totally contrary to the references and exhibits cited herein by the Applicant in that the basic molecular structures of alginates and pectins have widely differing physical and chemical properties and especially when modified by other ions and contained in a unique matrix as is submitted herein with the instant application, alginates would not

perform nor have the same physical, chemical as well as biological properties as the pectins for the treatment of wounds and related pathological states.

The same misunderstanding of the Examiner is true in comparing agars with pectins in which case the composition and physical and chemical properties of agars as compared to pectins differ even more radically from each other than alginates and pectin molecules (compare Exhibits A to N). These differences are accessible in the current literature and have been part of the current literature of the scientific and medical professions for many years.

The Applicant has had over 50 years of experience working with alginates and over 40 years of experience working with pectins. I must apologize in respectfully requesting that the Examiner provide two tables outlining the physical and chemical properties of alginate and pectin that can be characterized as similar and can both perform the same function as disclosed in the instant application of Scherr. The Examiner indicates that claims 78-92 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of the patent of Scherr (US 6,696,077) in view of Cole *et al.* (US 5,089,606). Further, the Examiner claims that the conflicting claims are not identical, but they are not patentably distinct from each other because they disclose similar methods of making an insoluble foam. Applicant has already argued and provided sufficient evidence herein that Cole *et al.* do not disclose a process for making an insoluble pectin sponge, because an insoluble pectin sponge would require the characterization of the pectin utilized to be amenable to precipitation with certain ions failing which an insoluble pectin sponge would not result. There is no need for Applicant to restate the arguments provided previously on this issue.

Even if we were to grant the argument of the Examiner that US patent 6,696,077 and the instant application of Scherr disclose similar methods of making an insoluble foam despite the fact that the instant application herein discloses an insoluble pectin foam and US patent 6,696,077 discloses an insoluble alginate foam, albeit as we shall see shortly, not in all of the claims 1-29 of US patent 6,696,077. One can argue as to the degree that two separate chemical agents can be utilized in similar methods of making an insoluble foam and retain similar properties for the purpose for which the preparation of the insoluble foam was intended for use. Every single claim in the Cole *et al.* patent cited by the Examiner utilizes di- or trivalent metal salts to precipitate a polysaccharide. Every single claim in US patent 6,696,077 cited by the Examiner utilizes the silver ion, a monovalent metal to precipitate the alginate. The reactivity and/or the avidity of a monovalent metal such as silver in precipitating alginate has no counterpart in the different solubilities achieved when di- or trivalent metal salts are utilized to precipitate alginate. What is even more important is that the purpose of preparing a medical dressing is to utilize an active component which is released from the insoluble foam and has antimicrobial activity as is well attributed to the olygodynamic activity of silver ions. The release of a monovalent silver ion from either pectin or alginate differs in the rate of disassociation to produce the silver ion that can react with microorganisms in a wound and thereby destroy them.

The argument of the Examiner that the disclosed "similar methods in making an insoluble foam" does not consider the wholly distinct mechanisms of action – chemically and biochemically - that the methods utilized by Cole *et al.*, Scherr in his patent 6,696,077, and Scherr in his instant application. In fact, in order to provide a uniform release of silver ions from the insoluble foam of silver alginate disclosed in US patent 6,696,077 beginning

with claim 21 and inclusive to finally claim 30, Scherr has added an insoluble calcium alginate product, which in and of itself has no significant biological activity except in acting as a molecular barrier to the controlled release of the silver ions from the silver alginate product which is the basis of Scherr's patent 6,696,077. By providing within the matrix of the silver alginate, an insoluble calcium alginate moiety, it has been shown experimentally that the silver ions released from the silver alginate dressing when applied to a wound will release the silver ions in a uniform manner over a period of days which makes unnecessary the changing of the dressing every day because the inhibitory effect of the amount of silver ions released can be controlled so as they are not released in too great an amount initially and are depleted as time goes on. This is clearly shown in Exhibit G. We have added, therefore, claims predicated on the combina- tion of a metallic pectate that is desirable to also include in the matrix a calcium pectate molecule to achieve a similar attribute as shown in Exhibit G. Attached hereto, and therefore, claims 21-30 in the Scherr US patent 6,696,077 has no counterpart in the instant application of Scherr nor in any of the citations cited by the Examiner whether they be Cole *et al.* or any of the others. This is an extremely significant attribute of Scherr's US patent 6,696,077 which has been shown if otherwise neglected, could result in too quick a release of silver ions into a wound which are absorbed by a patient and resulting in a pathological state of argyria. (See Exhibit H appended hereto). Solubilities in aqueous solution of alginate and of pectins can be achieved by methods which differ radically from each other. The avidity of various ions in precipitating alginates and/or pectins vary radically from each other. The avidity will dictate the ease with which such ions are released from the alginate or pectin moieties, especially in the light of the enormous number of different alginates and pectates that exist,

and have to be specifically chosen for the purpose for which these medical dressings are utilized.

Applicant persists in pointing out that the position of the Examiner in claiming prior art, because one patent discloses the utilization of an alginate and another discloses the utilization of a pectin and claim that they therefore have similar methods of making an insoluble foam is not consistent with fact and certainly differ radically in the methods by which the insoluble foams disassociate to release the ionic precipitates of the polyaccharides wherein they differ radically in the charge they have in that no monovalent silver is utilized by any of the references cited by the Examiner in preparing a matrix disclosed by the instant application of Scherr.

Applicant calls to the attention of the Examiner, the publication in the *Journal of Wound Care* which is appended here as Exhibit J. This independent study examined ten dressings, all of which contained silver for the purpose of inhibiting microorganisms in a wound. A number of them not only contained silver, but also contained alginate, such as the Arglaes dressing shown on page 1 of Exhibit J, and the Aquacel dressing shown on page 1 contained carboxy methyl cellulose as well as silver, and the Calgitrol dressing contains a silver alginate which is the one that is before us.

In reviewing this paper it is particularly pertinent to the arguments of the Applicant that each and every one of these dressings behaved very differently in matched tests against various organisms and under various conditions of the experiment. The amount of silver contained in the dressings did not play nearly as important a part in their performance as the composition of the matrix in which the silver was contained, an

attribute which Applicant argues is the unique feature of the dressing as described in the instant application.

In at least one of the dressings, the tests showed that not only did the dressing not inhibit the microorganism, but some of the microorganisms were able to grow in and on the silver dressing, a characteristic which would literally exclude such a dressing from any application in a wound care situation.

Thus, merely containing silver is not in and of itself a proper criterion to exclude an application as being precluded by prior art. This argument is further strengthened by an examination of the plethora of different compositions and different physical and chemical properties of alginates as can be gleaned from the literature. Thus, in the book by R. H. McDowell entitled *Properties of Alginates* published in 1961, we have included in Exhibit K appended hereto, the following pages from McDowell's book – pages 3, 5, 6, 9, 10, 11, 12, and 13.

The Examiner is referred to page 96, 97, and 98 of Exhibit A which indicates the wide variety of pectins that can be made in their different chemical and physical properties.

The Kelco Company which manufactures the largest variety of alginates has documented a wide array of alginates that can be prepared and their physical and chemical properties that warrant different applications and these pages from the Kelco documents are appended here as Exhibit L.

It is quite clear that the attempts of the Examiner to relate similar functions between alginates and pectins requires their citation of specific pectins and specific alginates as well as specific hydrocolloids and we have not had in the literature any such

specificity that would preclude the revelations set forth in the instant application as constituting prior art that would preclude the instant application of Scherr.

It is particularly noteworthy to take cognizance that merely the appearance of "similarity of presumed functions" (even if we could agree on the degree to which two different compounds behave in a manner similar to each other that would preclude the claim of novelty) (Emphasis added), the particular composition of matter in which even acceptable similar compounds are compared can behave radically different as a result of the manner in which they have been compounded or prepared. The United States Food and Drug Administration understands this problem very well and mandates that specific testing be done to examine such attributes as antimicrobial activity, cytotoxicity, producing hypersensitivity, and other attributes that have to be put to the test utilizing the claimed composition. This is bo rne out very well in examining the reports of similar dressings containing silver and their varying antimicrobial activity as illustrated in Exhibit J. Another excellent example in support of Applicant's contention that the mere citation of claimed similarity between two different compounds is not sufficient in and of itself when such compounds when compounded differently will behave differently under various test conditions. An excellent example is the marked differences in cytotoxicity reported for a number of silver dressings having many common compositions (see Exhibit M appended hereto).

The performance therefore, of two dressings which have some similar compounds as part of the dressing can have attributes on performance that would readily negate one as acting as a predicate device precluding the novelty of improved performance and safety of a subsequent product, contrary to the position taken by the Examiner.

> Section 35 § 103, PT II, CH. 10, PATENTABILITY OF INVENTIONS is intended to articulate a standard of invention somewhat less strict than that implied by reference to flash of creative genius but also to remind that patentability should be judged against state of art at time invention was made without benefit of hindsight predicated on subsequent art. (Frantz Mfg. Co. v. Phenix Mfg. Co., C.A. Wis.1972, 457 F.2d 314). The intent of this section also is not that either Examiner, Board of Appeals, or Court of Customs and Patent Appeals [now Court of Appeals for the Federal Circuit] should substitute their own speculations for factual knowledge of those skilled in the art. (Application of Katzschmann, 1965, 347 F.2d 620, 52 CCPA 1497).

The only person skilled in the art that meets the criteria of the instant application of Scherr is Scherr. None of the references cited by the Examiner, in part or considered together, constitute the composition of Scherr. If the Examiner can specifically cite those pectins which behave similarly to those cited in the application of Scherr and those alginates which can be considered in performance to the pectin ingredients in the composition of Scherr, then that would have to be examined in total to determine that the performance of those is similar to those performed by the composition of the instant application.

The Examiner cites the pertinent quotation from 35 U.S.C. § 103(a) and it is particularly pertinent to repeat the quotation cited by the Examiner:

> "(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

There are two attributes of this section 35 U.S.C. § 103(a) which require emphasis and they are:

"subject matter as a whole"

And

"...Patentability shall not be negatived by the manner in which the invention was made."

With regard to Cole *et al.* (US 5,089,606) the Examiner admits that the references differ from the instant claims insofar as they do not disclose the preferred polysaccharide to be pectic acid; the addition of ammonium hydroxide, surfactants, plasticizers and sodium tetraborate; and further that the composition is poured onto a fibrous cloth.

With regard to the reference to the patent by Nelson (US 4,065,614), the Examiner admits that this reference differs from the instant claims insofar as it does not disclose the pectins are used in a sponge or foam for a wound dressing or a process for making the wound dressing.

With regard to the citation of the patent of Pellico (US 4,291,025) as indicated by the Examiner, Pellico's patent differs from the instant claims insofar as it does not disclose a procedure for making a insoluble pectin sponge or foam comprising adding ammonium hydroxide, an effervescent compound, and acid followed by pouring the solution onto a fibrous cloth and drying the composition.

The Examiner also cites the patent of Shah *et al.* (US 5,527,271) and admits that the reference of Shah *et al.*'s patent differs from the instant claims insofar as it does not disclose the hydrogel is a insoluble pectin sponge or foam using a metal ion salt, acid, an effervescent agent, ammonium hydroxide and sodium tetraborate.

None of these references cited by the Examiner as constituting prior art fulfill the criterion of 35 U.S.C. § 103(a) in that the subject matter as a whole is clearly not obvious at the time that these citations of ostensibly prior art were made and have not been included as a whole in any of these citations of the Examiner, despite the fact that the citations represent the work of individuals who are skilled in the art. In addition, the

manner in which the instant application is made, the invention cited herein by Scherr has no counterpart to any one of the prior art cited by the Examiner.

The Examiner submits that "claims 91-92 are rejected as being unpatentable over Cole *et al.* (US 5,089,606) in view of Nelson (US 4,065,614), Park *et al.* (US 2001/0038831, Pellico (US 4,291,025) and Shah *et al.* (US 4,427,271) as applied to claims 78-90 above, and further in view of Bannert (US 5,147,648)".

The Examiner admits that the primary and secondary references differ from the instant claims of Scherr insofar as they do not disclose that mixtures of polysaccharides are used to make the gel compositions. Bannert discloses the advantage of using a mixture of polysaccharides. However, Bannert differs from the instant claims of Scherr as it does not disclose the compositions are made in to a foam wound dressing by adding acid, an effervescent compound, ammonium hydroxide and tetraborate to the compositions and further, which are poured on to a fibrous cloth. These omissions again are significant omissions and fail to meet the criteria of 35 U.S.C. § 103 in that the subject matter of Bannert as a whole differs radically from the instant claims of Scherr. Since the instant claims of Scherr have the capability, as set forth in the specification of Scherr, that:

> "The use of desirable particulate matter such as micro-particles that can act as time-release particles, aqueous insoluble medicaments, or even the use of intact cells such as yeast cells, blood cells, or human or animal tissue cells, that might be desirable to apply to an open wound may be introduced into the pectin foam composition described herein."

Thus the failure of Bannert to prepare a composition of matter in the form of a foam obviates completely the ability of Bannert and all of the other references cited by the Examiner who have failed to utilize the composition that would make it possible for